6

P a t e n t   c l a i m s
(Amended 3 May 2004)

1.   A method of transporting a first data stream of a first bit rate, such as E1, through a Synchronous Digital Hierarchy (SDH) switched network from a first endpoint to a second endpoint using TDM,
c h a r a c t e r i z e d · i n

    a)   demultiplexing the first data stream from the first endpoint onto a number of Single pair High speed Digital Subscriber Lines (SHDSLs) each having a second data stream of a SHDSL adjusted second bit rate,

    b)   mapping each of the second data streams into data bit and/or unused overhead bit positions of SDH specified data containers,

    c)   multiplexing the data containers into the SDH switched network.

2.   Method according to claim 1,
c h a r a c t e r i z e d   i n

    d)   inverting the steps a) – b) to retrieve the first bit rate at the second endpoint side. ·

3.   Method according to claim 1 or 2,
c h a r a c t e r i z e d   i n that, in each of the second data streams, there is included an overhead of a third bit rate incorporating e.g. framing words, alarm indication and/or transmission quality measurement.

4.   Method according to claim 3,
c h a r a c t e r i z e d   i n that at least a part of the overhead includes frame synchronisation words for meas-

7

uring delay differences between the SHDSL lines for thereby securing end-to-end integrity of the second data streams.

5. Method according to one of the preceding claims, c h a r a c t e r i z e d   i n   that the data containers are C-12 containers with a bit rate of 2.176 Mbit/s.

6. Method according to claim 5, c h a r a c t e r i z e d   i n   that the data bit positions are C-12 D-bit positions and the unused overhead bit positions are C-12 R-bit positions.

7. Method according to one of the preceding claims, c h a r a c t e r i z e d   i n   that the number of SHDSLs is four, and the second bit rate is 2.120 Mbit/s.

8. Method according to claim 7, c h a r a c t e r i z e d   i n   that the first bit rate is 8.448 Mbit/s and the third bit rate is 8 Kbit/s.

9. Method according to claim 7 or 8, c h a r a c t e r i z e d   i n   that the R-bit positions being used are 8 R-bit positions in each of byte 34, 68, 102 and 136 in addition to bit number 7 in byte 1, 35, 69, and 103.

10. Method according to claim 1, c h a r a c t e r i z e d   i n   that the first bit rate is X Mbit/s, the second bit rate is $i \times 8$ kbit/s ($i \in [1,7]$) plus $n \times 64$ kbit/s ($n \in [1,36]$) and the number of SHDSL lines is N and the number of datacontainers are N wherein N and X are any integer number.

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